

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555

March 31, 1993

NRC INFORMATION NOTICE NO. 93-23: WESCHLER INSTRUMENTS MODEL 252
SWITCHBOARD METERS

Addressees

All holders of operating licenses or construction permits for nuclear power reactors.

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to alert addressees to possible problems with Weschler Instruments (Weschler) Model 252 commercial grade switchboard meters. It is expected that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances

On November 9, 1992, Weschler informed the NRC of sticking meter movements in some Model 252 meters manufactured and supplied as commercial grade items. Although Weschler reported having no evidence that meters manufactured specifically for safety-related service are affected, Weschler was concerned that affected commercial grade meters could have been dedicated for use in nuclear safety-related applications.

Discussion

Weschler determined that some of the commercial grade meters returned for repair or calibration were inaccurate and erratic. The vendor engineering report attributed this problem to sticking of the meter movement because of an off-center torsion spring. Weschler determined that this condition resulted from a deviation in the dimensions associated with the torsion head screws combined with several coincidental factors that included (1) degradation of clip-to-torsion screw lubrication, (2) low initial force from the spring-retaining clip or fatigue of the spring-retaining clip, (3) variations in the alignment of the meter movement during initial assembly, and (4) the effect of the summation of the dimensional tolerances in the assembly of the subcomponents.

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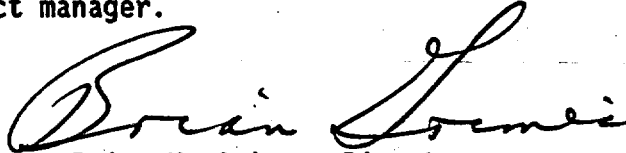
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To prevent this deficiency in future products, Weschler revised its production inspection procedures to specifically require checking the dimensions in question. Weschler also revised its nuclear quality assurance procedures to require specific checks of torsion head screw dimensions, although the vendor has not detected a problem with meters manufactured specifically for safety-related applications.

Weschler could not determine whether or not any Model 252 switchboard meters sold as commercial grade items through the various distributors had been dedicated for use in nuclear safety-related applications. Therefore, Weschler has not directly notified any licensees about this problem.

Weschler stated that the principal corrective action it has taken for affected meters returned for repair and recalibration is to replace the faulty torsion head screws because they can't be repaired. Upon request, Weschler will give licensees information about the problem and the recommended corrective measures.

This information notice requires no specific action or written response. If you have any questions about the information in this notice, please contact the technical contact listed below or the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.



Brian K. Grimes, Director
Division of Operating Reactor Support
Office of Nuclear Reactor Regulation

Technical contact: S. V. Athavale, NRR
(301) 504-2974

Attachment:
List of Recently Issued NRC Information Notices

LIST OF RECENTLY ISSUED
 NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
93-22	Tripping of Klockner-Moeller Molded-Case Circuit Breakers due to Support Level Failure	03/26/93	All holders of OLs or CPs for nuclear power reactors.
93-21	Summary of NRC Staff Observations Compiled during Engineering Audits or Inspections of Licensee Erosion/Corrosion Programs	03/25/93	All holders of OLs or CPs for light water nuclear power reactors.
93-20	Thermal Fatigue Cracking of Feedwater Piping to Steam Generators	03/24/93	All holders of OLs or CPs for PWRs supplied by Westinghouse or Combustion Engineering.
93-19	Slab Hopper Bulging	03/17/92	All nuclear fuel cycle licensees.
93-18	Portable Moisture-Density Gauge User Responsibilities during Field Operations	03/10/93	All U.S. Nuclear Regulatory Commission licensees that possess moisture-density gauges.
93-17	Safety Systems Response to Loss of Coolant and Loss of Offsite Power	03/08/93	All holders of OLs or CPs for nuclear power reactors.
93-16	Failures of Nut-Locking Devices in Check Valves	02/19/93	All holders of OLs or CPs for nuclear power reactors.
93-15	Failure to Verify the Continuity of Shunt Trip Attachment Contacts in Manual Safety Injection and Reactor Trip Switches	02/18/93	All holders of OLs or CPs for nuclear power reactors.
93-14	Clarification of 10 CFR 40.22, Small Quantities of Source Material	02/18/93	All licensees who possess source material.

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orig /s/'d by BKGrimes

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DOCUMENT NAME: 93-23-IN

[Signature]
D/DORS:NRR
BKGrimes
03/29/93

*D/DRIL:NRR
CERossi
03/11/93

*D/DRCH:NRR
BABoger
02/11/93

*C/OGCB:DORS:NRR
GHMarcus
03/15/93

*OGCB:DORS:NRR*HICB:DRCH:NRR*SC/HICB:DRCH:NRR*C/HICB:DRCH:NRR*RPB:ADM
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D/DORS:NRR	*D/DRIL:NRR	*D/DRCH:NRR	C/OGCB:DORS:NRR
BKGrimes	CERossi	BABoger	GHMarcus
03/ /93 <i>mea</i>	03/11/93	02/11/93	03/15/93 <i>GHM</i>
*OGCB:DORS:NRR	*HICB:DRCH:NRR	*SC/HICB:DRCH:NRR	*C/HICB:DRCH:NRR
*RPB:ADM			
AJKugler	SVAthavale	JMauck	JWermiel
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DOC NAME: WESCHLER.IN

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